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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,382	11/25/2003	Gon Kim	K-0564	4277
34610	7590	09/28/2007	EXAMINER	
KED & ASSOCIATES, LLP			RIGGLEMAN, JASON PAUL	
P.O. Box 221200			ART UNIT	PAPER NUMBER
Chantilly, VA 20153-1200			1746	
MAIL DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/720,382	KIM ET AL.	
	Examiner	Art Unit	
	Jason P. Riggleman	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 31 July 2007.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-3 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-3 and 7-9 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/31/2007 has been entered.

Response to Arguments

2. Applicant's reply filed on 7/31/2007 is acknowledged. Current pending claims are 1-3 and 7-9. Claim 1 has been amended. Claims 4-6 have been cancelled.

3. Applicant's arguments and amendments, filed 7/31/2007, have been fully considered and not persuasive. The applicant argues that Cho (US Patent No. 6044510) teaches only a manual washing mode since the user inputs the time and temperature (S201). Further, the applicant argues that Cho only teaches the various subroutines that are performed while the machine is operating in manual mode. Examiner states that Cho manually inputs information which then is used to perform an automatic washing -- automatic subroutine execution (Columns 3-4, Lines 59-67 and Lines 0-8). The applicants arguments are not understood. The arguments are not commensurate in scope with the claims since the claims do not identify the parameters pre-programmed into the controller and how they differ from a subroutine.

Art Unit: 1746

4. The 102 (b) rejection of claim 5 over Tanaka et al. in view of Harwood is withdrawn in view of the applicant's cancellation of the claim. The 103 (a) rejection of claims 3 and 9 over Cho and Harwood in view of Knopp are withdrawn in view of the amendments.

Claim Objections

5. Claims 1-3 and 7-9 are objected to because of the following informalities: it is unclear as to where the water temperature is being measured – in the tub or supply hoses? Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The phrase "independent of any manual setting entered by a user" is not supported by the original disclosure. Examiner points to claim 1, part (a) which states "detecting selection of an automatic washing mode by a user."

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1746

9. The term "washing condition", in claims 1-3 and 9, is unclear. For purposes of examination, this is assumed to be – washing time or washing temperature or water level.

10. The term "automatic" in claim 1 is a relative term which renders the claim indefinite. The term "automatic" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1 and 7-9 are rejected under 35 U.S.C. 102(b) as anticipated by Cho (US Patent No. 6044510) or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cho (US Patent No. 6044510).

12. Cho teaches a method for controlling a drum-type washing machine equipped with a manually selected automatic washing mode (Columns 5-6, Lines 24-29 and Lines 0-2). The washing mode (time and temperature subroutine) is selected by the user, S101, Fig. 2, the water temperature supplied to the washing machine is sensed, S104, and compared to a reference temperature (set temperature) during the washing mode (subroutine). Laundry is washed based on a first-predetermined washing condition (S214) if the sensed temperature is above the reference temperature (set temperature). The laundry is washed based on a second predetermined washing condition (S202-S213) if the sensed temperature is below the reference temperature (set temperature) (Columns 3-4, Lines 59-67 and Lines 0-8). The first and second predetermined

Art Unit: 1746

washing conditions are stored in a memory of the control unit (microprocessor subroutines)(Column 3, Lines 35-67). The washing conditions (subroutines) may comprise data about an optimal amount of washing water, a duration of time of respective temperatures measured in a measuring step, a rotational velocity of the drum and a period for change the rotational direction of the drum (Column 2, Lines 59-64).

The washing mode (subroutine) is also based on a predetermined washing time, S215,

Fig. 3. Water is supplied to a tub of the washing machine from a water supply valve. In the automatic washing mode, laundry is washed based on parameters pre-programmed (subroutines pre-input into the microprocessor) into the control unit of the washing machine (Column 3, Lines 25-33).

13. In the alternative, Cho does not teach an automatic washing mode; however, it has been held that it is obvious to make a manual device automatic (*In re Venner* 120 USPQ 192). It would have been obvious to one of ordinary skill to modify Cho to create an efficient automatic washing machine which reduces the time needed by the user to operate and control the washing machine.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1746

15. Claims 2-3 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Cho (US Patent No. 6044510), as applied to claim 1 above, in view of Harwood (US Patent No. 5768728).

16. In regards to claim 2, Cho does not teach a step of sensing a load size; however, Harwood discloses such a method. Harwood teaches a process (Column 2, Lines 47-67 and Column 3, Lines 0-2) whereby a laundry washing machine automatically determines a load size and fills the tub to the water level, accordingly. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Cho with Harwood to create an energy efficient automatic drum-type washing machine – which uses both water temperature and load size to determine the washing condition.

17. In regards to claim 3, Cho (as modified by Harwood above) does not teach the washing conditions stored in a look-up table; however, it has been held than an obvious choice in design is not patentable (*In re Kuhle* 188 USPQ 7). The combination of Cho, as modified by Hardwood, teaches a washing machine controller which stores subroutines. It would have been obvious to one of ordinary skill to modify Cho, as modified by Harwood, to create a look-up table based format for the controller to store the subroutines in the controller memory.

18. Claim 9 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Cho (US Patent No. 6044510).

19. In regards to claim 9, Cho does not teach the washing conditions stored in a look-up table; however, it has been held than an obvious choice in design is not patentable (*In re Kuhle* 188 USPQ 7). Cho teaches a washing machine controller

Art Unit: 1746

which stores subroutines. It would have been obvious to one of ordinary skill to modify Cho to create a look-up table based format for the controller to organize the subroutines in the controller memory.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason P. Riggleman whose telephone number is 571-272-5935. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason P Riggleman
Examiner
Art Unit 1746



MICHAEL BARR
SUPERVISORY PATENT EXAMINER

JPR

Application/Control Number: 10/720,382

Art Unit: 1746

Page 8